YOR 920030169
Gustavson et al
SCK

100

Matrix Operation: $C = C - A^T * B$

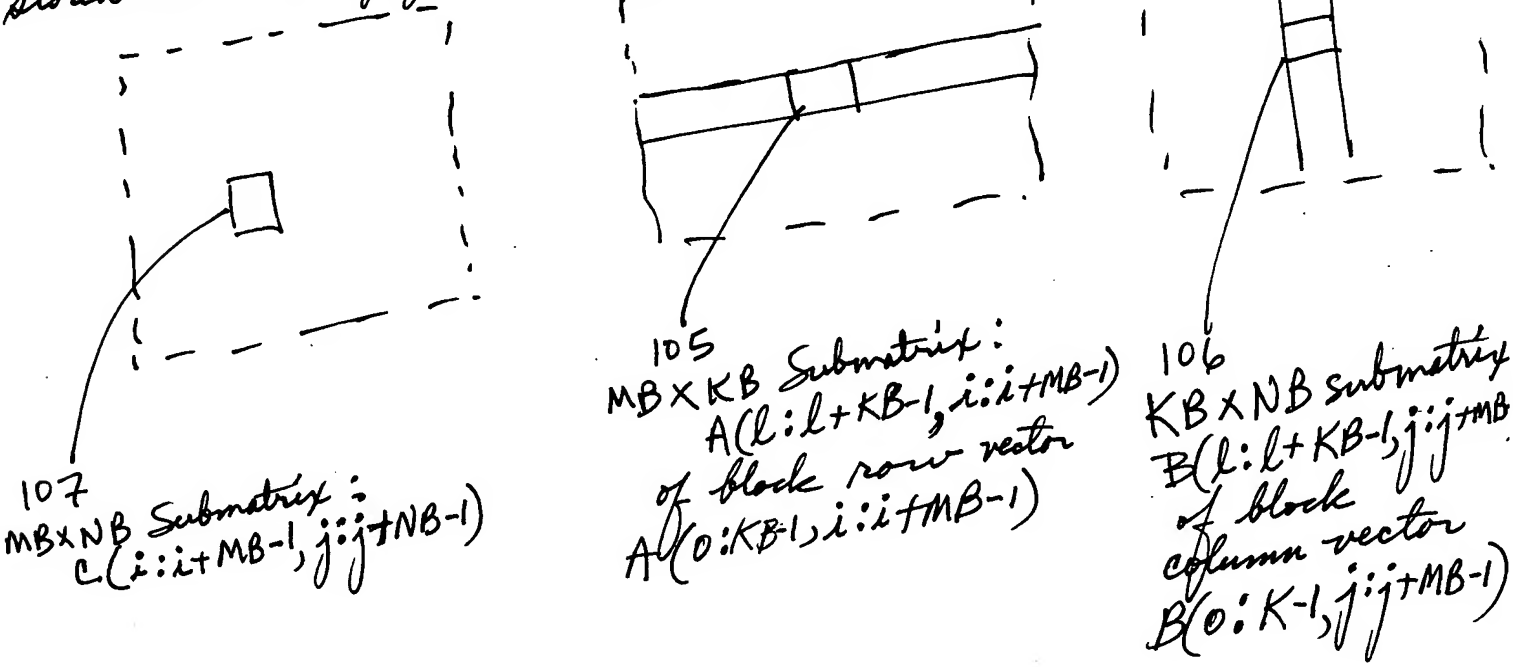
104

j = 0, N-1, NB
i = 0, M-1, MB
L = 0, K-1, KB

Matrix C — 103
(Entire matrix usually stored in column major format)

Matrix A — 101
(Entire matrix usually stored in row major format)

Matrix B — 102
(Entire matrix usually stored in column major format)



107
MB×NB Submatrix:
C(i:i+MB-1, j:j+NB-1)

105
MB×KB Submatrix:
A(L:L+KB-1, i:i+MB-1)
of block row vector
A(0:KB-1, i:i+MB-1)

106
KB×NB Submatrix
B(L:L+KB-1, j:j+MB
of block
column vector
B(0:K-1, j:j+MB-1)

FIGURE 1

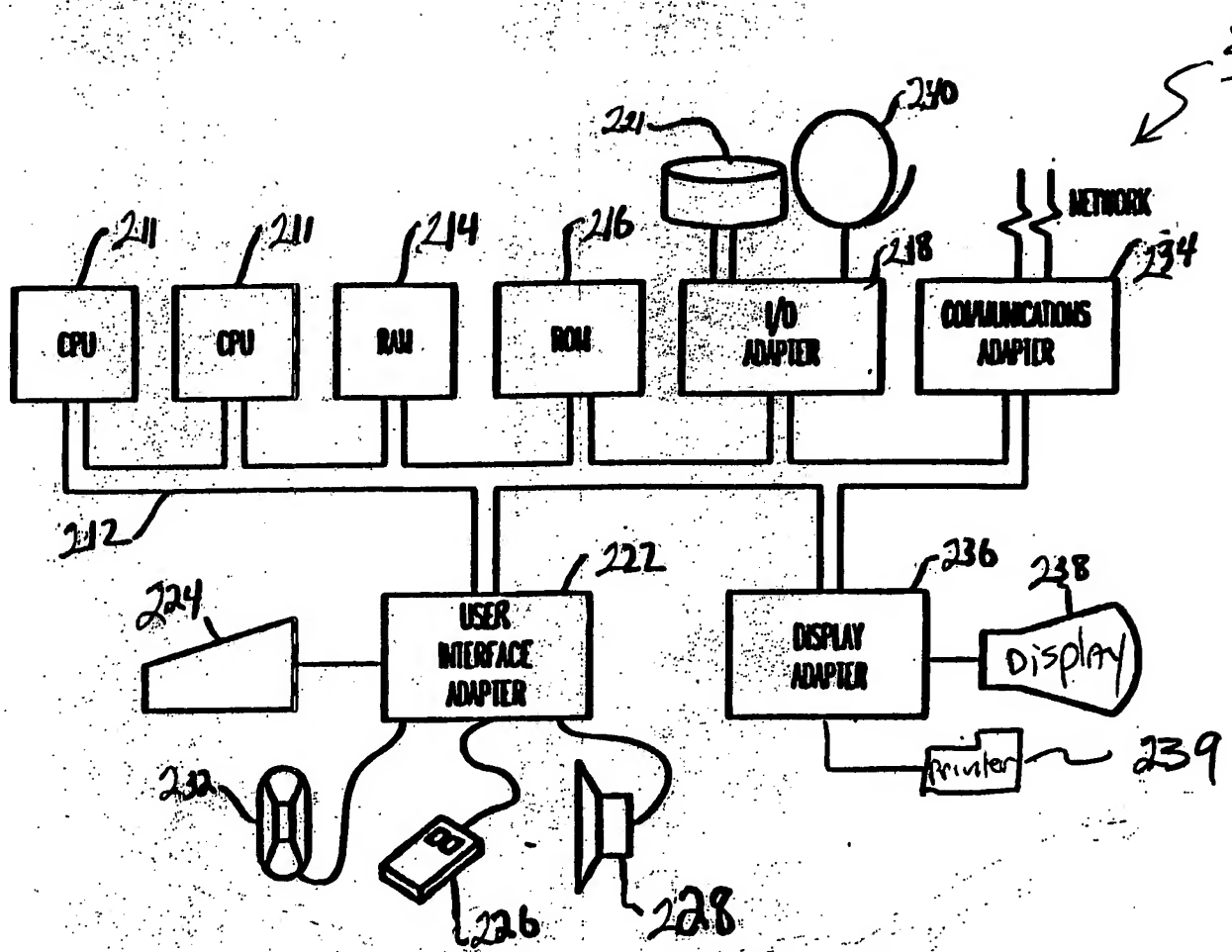


FIGURE 2

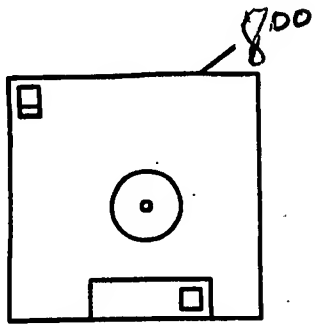


FIGURE 8

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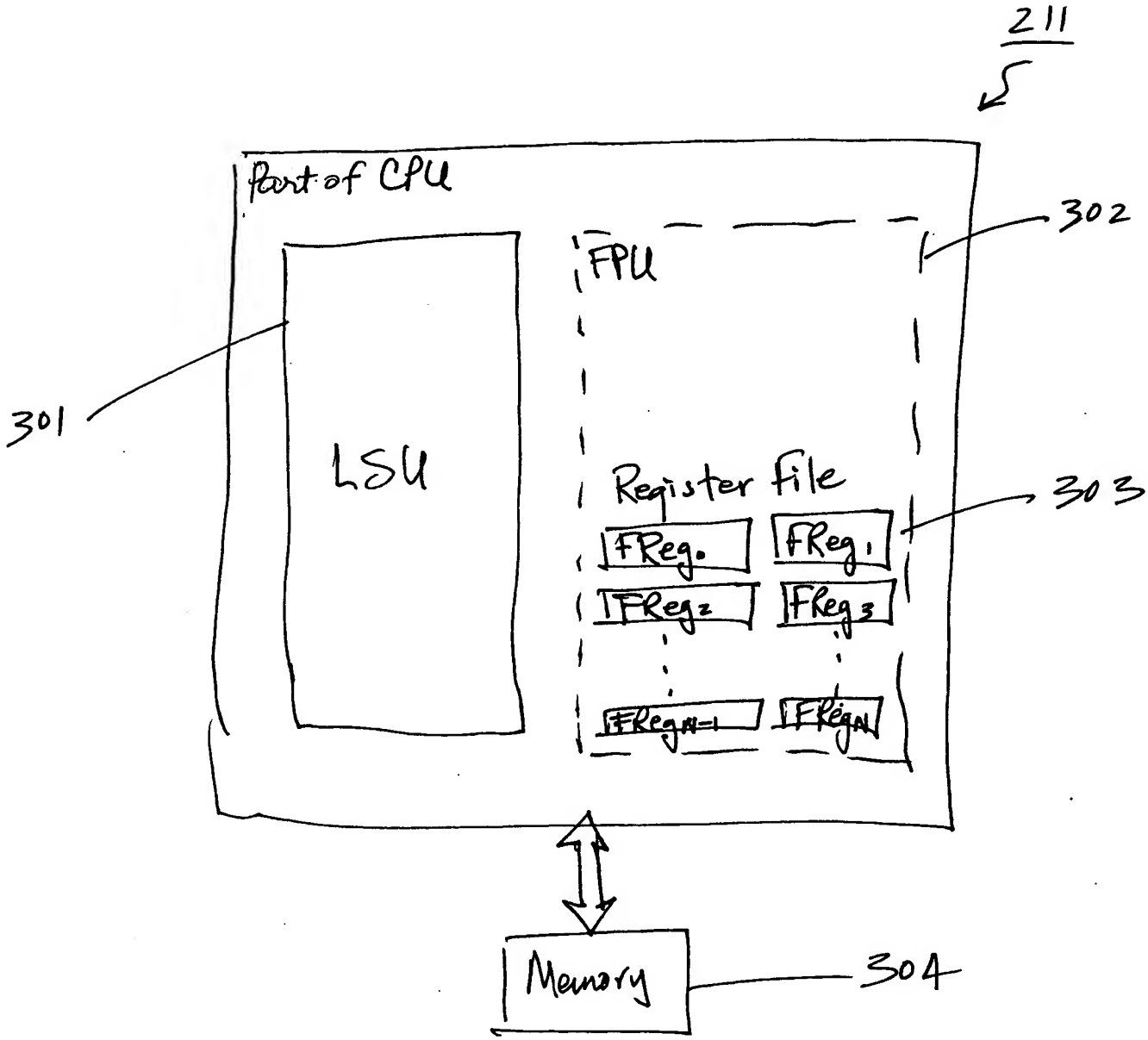

FIGURE 3

YOR920030169US1

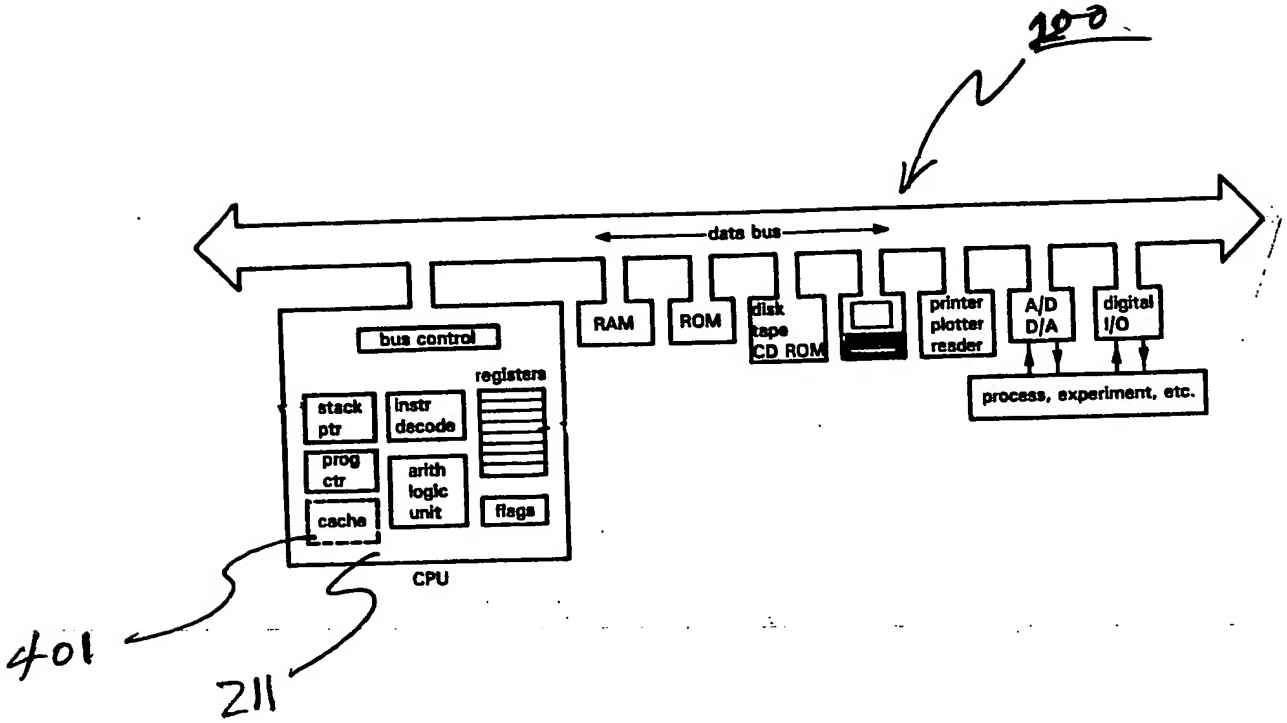

FIGURE 4

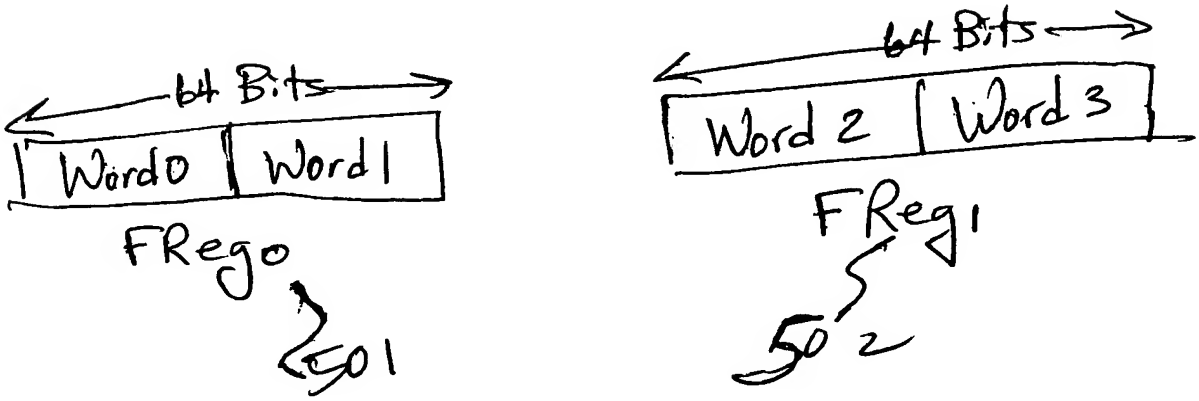

FIGURE 5

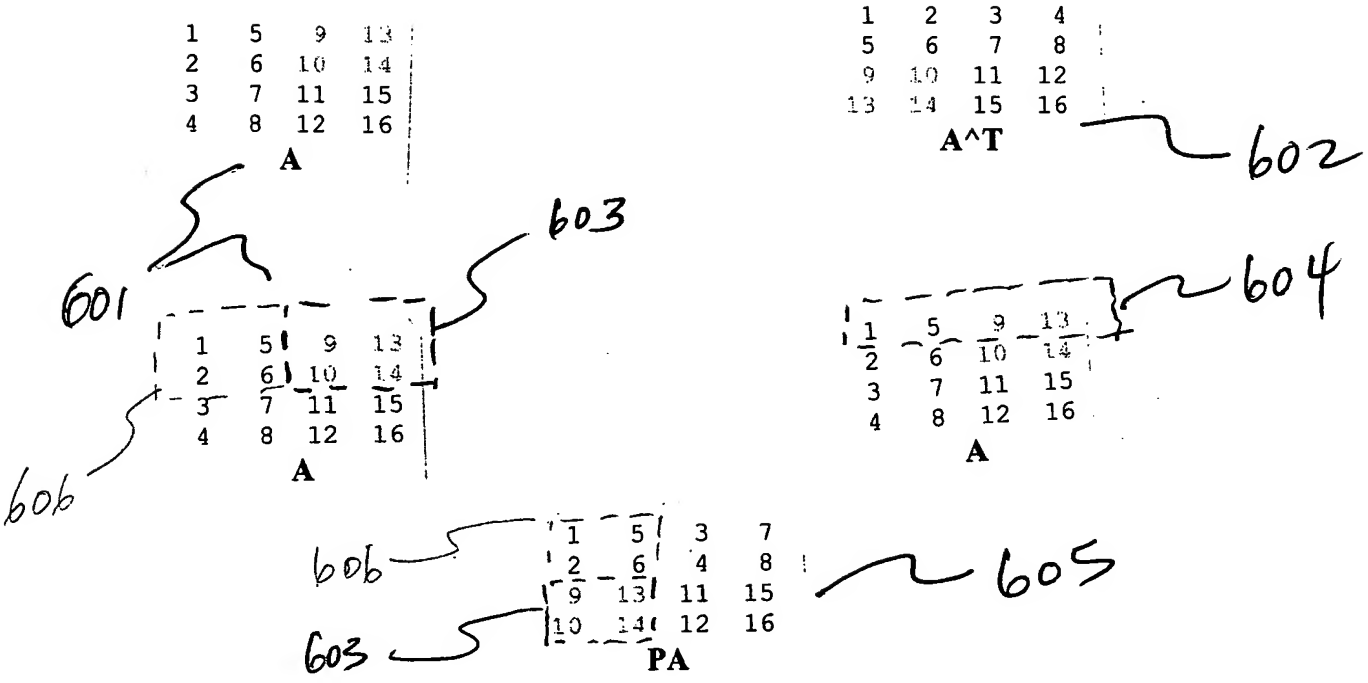

FIGURE 6

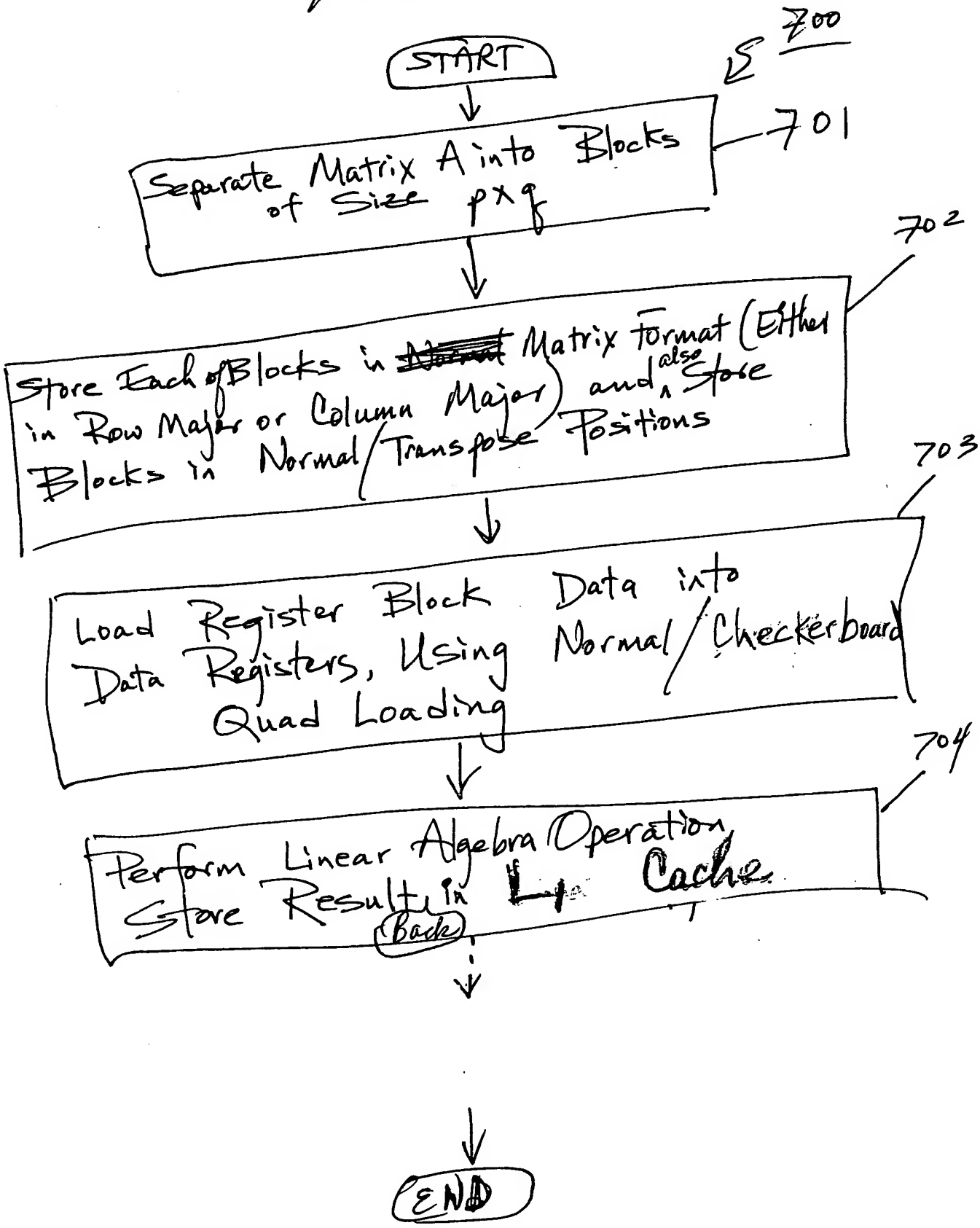
700
START
Separate Matrix A into Blocks of Size p x q
701
Store Each of Blocks in ~~Normal~~ Matrix format (Either in Row Major or Column Major) and also Store Blocks in Normal/Transpose Positions
702
Load Register Block Data into Data Registers, Using Normal/Checkerboard Quad Loading
703
Perform Linear Algebra Operation Store Results in L1 Cache Back
704
END

FIGURE 7